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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,159	12/02/2003	David Mark Pascoe	19345-095761	8881
7590 01/18/2006				
Mr. Robin W. Asher Clark Hill, P.L.C. Suite 3500 500 Woodward Avenue Detroit, MI 48226-3435			EXAMINER COMPTON, ERIC B	
			ART UNIT 3726	PAPER NUMBER
DATE MAILED: 01/18/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No. 10/726,159	Applicant(s) PASCOE ET AL.	
	Examiner Eric B. Compton	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

2. Claims 1-34 are provisionally rejected under 35 U.S.C. 102(f) because a different inventive entity may have invented the claimed subject matter.

WO 2004/028722, although not prior art, appears to disclose the same subject matter but has a different inventive entity. Only inventor Jianwen Li, is common to both that reference and the instant application. The inventive entity is different if not all inventors are the same. See MPEP 2137.01. The fact that the application and reference have one or more inventors in common is immaterial. *Ex parte DesOrmeaux*, 25 USPQ2d 2040 (Bd. Pat. App. & Inter. 1992).

Applicant is request to resolve this issue.

3. Claims 25-34 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. 6,061,907 to Victoria et al.

Regarding claim 25, Victoria discloses a differential housing assembly (see Fig. 2) comprising a housing (34) comprising a bell shaped body (34) extending between a cylindrical first end (60) and an opposing annular second end (42) having a ring gear (44) integrally formed (by laser welding, see Col. 3, line 38) thereon.

Note: the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973). Furthermore, "The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted).

Regarding claims 26-34, these features are disclosed (or inherently provided for) by the reference as well. See Figure 2-11.

4. Claims 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 09-229162 to YANAGAWA.

Regarding claim 25, YANAGAWA discloses a differential housing assembly (see Fig. 1) comprising a housing (18) comprising a bell shaped body (19) extending between a cylindrical first end (21L) and an opposing annular second end (21R) having a ring gear (26) integrally formed thereon. See *also* U.S. Pat. 6,146,304 (Figure 6); JP 2000-266162; and JP 11-072158.

Regarding claims 26-30, these features are disclosed (or inherently provided for) by the reference as well.

5. Claims 25-34 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 62-132055 to Tozawa.

Regarding claim 25, Tozawa discloses a differential housing assembly (see Fig. 1) comprising a housing (1) comprising a bell shaped body (2) extending between a

Art Unit: 3726

cylindrical first end and an opposing annular second end having a ring gear (6)

integrally formed thereon.

The JPO English Abstract discloses:

PURPOSE: To form a case in small size and in light weight, by forming a driven gear part and a case body part, which arranges spindles to be mounted, to be forged by special steel and integrally molded.

CONSTITUTION: A differential gear case 1 comprises a main unit 2 and a cover member 4, and the main unit 2 is formed by integrally forging a case body part 5 and a driven gear part 6 by special steel. The case body part 5 arranges spindles 7 to be mounted, and the case 1 fits one axle 8 of the right and left axles of an automobile to the case body part 5 while the other axle 9 to the cover member 4. Power from an engine is transmitted to the axles 8, 9 through the driven gear 6, case body part 5, spindles 7 and differential gear wheels 10, 11. Accordingly, the case can be formed in small size and also in light weight by obtaining sufficient strength.

Regarding claims 26-34, these features are disclosed (or inherently provided for) by the reference as well.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3726

7. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-132055 to Tozawa in view of JP 64-018545 to HONDA, and JP 02-133141 to SEIKI, and/or U.S. Pat. 6,351,886 to Hasegawa.

Regarding claim 25, Tozawa discloses a differential housing assembly (see Fig. 1) comprising a housing (1) comprising a bell shaped body (2) extending between a cylindrical first end and an opposing annular second end having a ring gear (6) integrally formed thereon.

The JPO English Abstract discloses:

PURPOSE: To form a case in small size and in light weight, by forming a driven gear part and a case body part, which arranges spindles to be mounted, to be forged by special steel and integrally molded.

CONSTITUTION: A differential gear case 1 comprises a main unit 2 and a cover member 4, and the main unit 2 is formed by integrally forging a case body part 5 and a driven gear part 6 by special steel. The case body part 5 arranges spindles 7 to be mounted, and the case 1 fits one axle 8 of the right and left axles of an automobile to the case body part 5 while the other axle 9 to the cover member 4. Power from an engine is transmitted to the axles 8, 9 through the driven gear 6, case body part 5, spindles 7 and differential gear wheels 10, 11. Accordingly, the case can be formed in small size and also in light weight by obtaining sufficient strength.

However, the reference does not disclose the particulars of the forging processes to form the housing having an integral gear.

HONDA, SEIKI, and Hasegawa, disclose a method of forging a gear device in which the outer gear section is integral molded with the inner body section by forging. See Abstracts. The process comprises the steps of:

- forging a conical frustum (e.g., a bloom) from a steel rod;

- deforming the frustum between upper and lower halves of a tool (e.g., dies) to produce a body section having an annular rim portion; and
- forging a plurality of teeth in the annular rim defining a gear.

Regarding claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the differential housing of Tozawa by the claimed forging processes, in light of the teachings of HONDA, SEIKI, and/or Hasegawa, in order to get a "good yield with high accuracy" forging. See e.g., HONDA, JPO English Abstract. "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Regarding claims 2-24, these features are disclosed (and/or suggested) by the references as well. See *also* U.S. Pat. 6,061,907 to Victoria et al.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. 6,945,898, discloses "as shown in FIG. 1a, a ring gear 46a is formed integrally with the lid 24a to eliminate the step of welding the ring gear 24a to the housing 12." Col. 5, lines 4-6. However, the reference does not disclose the ring is formed on the housing.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (571) 272-4527. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric B. Compton
Primary Examiner
Art Unit 3726

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